WHAT IS CLAIMED IS:

1. A digital data transmission system at least one first unit that transmits a first MLT3 signal containing digital data over at least one cable, at least one second unit that receives the first MLT3 signal and recovers the digital data, and transformers that uncouple the first and second units from the cable, said second unit comprising:

an equalizer that receives the first MLT3 signal and outputs a second MLT3 signal;

a recovery module for the transmitted digital data that receives the second MLT3 signal; and

a device placed in feedback to the equalizer, the device receiving the second MLT3 signal and outputting a third low frequency signal that is added to the first MLT3 signal at the input of the equalizer,

wherein the device includes a translation block for up or down or no translation of the second MLT3 signal according to the low or high or intermediate value of the second MLT3 signal, and a low pass filter that receives the signal output from the translation block and outputs the third signal that contains the low frequency component of the second MLT3 signal.

2. The system according to claim 1,

wherein the second MLT3 signal is a voltage signal, and

in the translation block, the second MLT3 signal is translated by approximately -1V or 1V when the value of the second MLT3 signal is higher than approximately 0.5V or lower than approximately -0.5V, while there is no translation of the second MLT3 signal if its value is between approximately -0.5V and 0.5V.

3. The system according to claim 2, wherein the translation block includes:

a comparator that has thresholds of approximately 0.5V and -0.5V and receives at input the second MLT3 signal; and

three switches controlled by the comparator, each of the switches being connected to the output of the equalizer and two of the switches being connected to voltage generators of values of approximately -1V and 1V.

4. The system according to claim 1,

wherein the second MLT3 signal is a voltage signal, and

in the translation block, the second MLT3 signal is converted by a voltage/current converter so as to produce a current signal that is translated by approximately -100 μA or by 100 μA when the value of the current signal is higher than approximately 50 μA or lower than approximately-50 μA, while there is no translation of the current signal if its value is between approximately -50 μA and 50 μA.

5. The system according to claim 4, wherein the translation block includes:

a comparator that has thresholds of approximately 50 μA and -50 μA and receives the current signal; and

three switches controlled by the comparator, each of the switches being connected to the output of the voltage/current converter and two of the switches being connected to current generators of values of approximately -100 μA and 100 μA.

6. The system according to claim 1, wherein the signal output from the low pass filter is a voltage signal that controls a current generator that provides a current signal that produces the third signal at the terminals of a resistor, which is disposed between the input of the equalizer and the transformer of the receiver.

7. The system according to claim 1, further comprising an uncoupling buffer located before the switches.

8. The system according to claim 1, wherein the digital data transmission system is an ethernet system.

9. The system according to claim 1, wherein the digital data transmission system is a 100Mb/s digital data transmission system.

10. A receiver for a digital data transmission system, said receiver comprising:

an equalizer that receives a first MLT3 signal and outputs a second MLT3 signal;

a recovery module for transmitted digital data contained in the second MLT3 signal, the recovery module receiving the second MLT3 signal; and

a device placed in feedback to the equalizer, the device receiving the second MLT3 signal and outputting a third low frequency signal that is added to the first MLT3 signal at the input of the equalizer,

wherein the device includes a translation block for up or down or no translation of the second MLT3 signal according to the low or high or intermediate value of the second MLT3 signal, and a low pass filter that receives the signal output from the translation block and outputs the third signal that contains the low frequency component of the second MLT3 signal.

11. The receiver according to claim 10,

wherein the second MLT3 signal is a voltage signal, and

in the translation block, the second MLT3 signal is translated by approximately -1V or 1V when the value of the second MLT3 signal is higher than approximately 0.5V or lower than approximately -0.5V, while there is no translation of the second MLT3 signal if its value is between approximately -0.5V and 0.5V.

12. The receiver according to claim 11, wherein the translation block includes:

a comparator that has thresholds of approximately 0.5V and -0.5V and receives at input the second MLT3 signal; and

three switches controlled by the comparator, each of the switches being connected to the output of the equalizer and two of the switches being connected to voltage generators of values of approximately -1V and 1V.

13. The receiver according to claim 10,

wherein the second MLT3 signal is a voltage signal, and

in the translation block, the second MLT3 signal is converted by a voltage/current converter so as to produce a current signal that is translated by approximately -100 μA or by 100 μA when the value of the current signal is higher than approximately 50 μA or lower than approximately-50 μA, while there is no translation of the current signal if its value is between approximately -50 μA and 50 μA.

14. The receiver according to claim 13, wherein the translation block includes:

a comparator that has thresholds of approximately 50 μA and -50 μA and receives the current signal; and

three switches controlled by the comparator, each of the switches being connected to the output of the voltage/current converter and two of the switches being connected to current generators of values of approximately -100 μA and 100 μA.

15. The receiver according to claim 10, wherein the signal output from the low pass filter is a voltage signal that controls a current generator that provides a current signal that produces the third signal at the terminals of a resistor, which is disposed between the input of the equalizer and a transformer of the receiver.

16. The receiver according to claim 15, further comprising an uncoupling buffer located before the switches.

17. The receiver according to claim 10, wherein the digital data transmission system is an ethernet system.

18. The receiver according to claim 10, wherein the digital data transmission system is a 100Mb/s digital data transmission system.

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19. A method for receiving transmitted digital data in a digital data transmission system, said method comprising the steps of:

receiving a first MLT3 signal and outputting a second MLT3 signal;

recovering the transmitted digital data contained in the second MLT3 signal; and

providing feedback so as to up or down or not translate the second MLT3 signal according to the low or high or intermediate value of the second MLT3 signal.

20. The method according to claim 19, wherein the digital data transmission system is an ethernet system.

21. The method according to claim 10, wherein the digital data transmission system is a 100Mb/s digital data transmission system.